UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,575	12/29/2000	James Hermerding	042390.P9249	1629

			EXAMINER
8791	7590	08/04/2005	YANCHUS III, PAUL B

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ART UNIT	PAPER NUMBER
2116	

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

This final office action is in response to amendments filed on 5/18/05.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1-7 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Matoba, US Patent no. 5,913,068, in view of Bealkowski et al., US Patent no. 6,378,027

[Bealkowski].

Regarding claim 1, Matoba discloses a method of managing power in a computer system,

comprising:

operating the computer system at a first CPU [CPU #3 is operational until parallel degree

switching control software determining that it is to be stopped, column 7, lines 29-41];

receiving a first signal generated by a thermal sensor within the first CPU [column 3,

lines 36-42, column 5, lines 53-60 and column 7, lines 13-20]; and

resuming operation of the computer system at a second CPU [CPU #0 is selected to take

over the process performed by CPU #3, column 8, lines 12-27].

Matoba does not disclose that the operating system controls the selecting a second CPU

to receive a workload of the first CPU. Matoba instead discloses that a software application

[parallel degree switching control software] controls the selecting a second CPU to receive a

workload of the first CPU. Bealkowski discloses an operating system which controls selecting

of a first processor to operate a system and selecting of second processor to operate the system

when the first processor is in an abnormal operating condition [column 4, lines 5-16 and 66-67

and column 5, lines 1-4]. It would have been obvious to one of ordinary skill in the art to modify

the Matoba method to enable the operating system, instead of a software application, to control

the selecting of a second CPU to receive a workload of the first CPU in order to simplify the

system by eliminating the need for a separate software application to execute concurrently with

the operating system.

Regarding claims 2 and 3, Matoba further discloses determining which CPU has least

recently taken over the process [column 8, lines 12-17].

Regarding claim 4, Matoba further discloses that the method may be carried on a system

with a four CPU configuration and with as many as three CPU's being disabled at one time

[column 3, lines 30-41 and column 6, lines 45-50].

Regarding claim 5, Matoba discloses a computer system comprising:

a first central processing unit (CPU) [CPU #3 is operational until parallel degree

switching control software determining that it is to be stopped, column 7, lines 29-41]; and

a second CPU, wherein the operation of the computer system is transferred from the first

CPU to the second CPU upon the first CPU reaching a predetermined power threshold [CPU #0

is selected to take over the process performed by CPU #3, column 7, lines 12-20 and column 8,

lines 12-27].

Matoba does not disclose that the operating system controls the selecting a second CPU

to receive a workload of the first CPU. Matoba instead discloses that a software application

[parallel degree switching control software] controls the selecting a second CPU to receive a

workload of the first CPU. Bealkowski discloses an operating system which controls selecting

of a first processor to operate a system and selecting of second processor to operate the system

when the first processor is in an abnormal operating condition [column 4, lines 5-16 and 66-67

and column 5, lines 1-4]. It would have been obvious to one of ordinary skill in the art to modify

the Matoba system to enable the operating system, instead of a software application, to control

the selecting a second CPU to receive a workload of the first CPU in order to simplify the system

by eliminating the need for a separate software application to execute concurrently with the

operating system.

Regarding claim 6, Matoba further discloses that the processors each include a thermal

sensor [column 3, lines 36-40].

Regarding claim 7, Matoba further discloses that operation of the computer system is

transferred from the first CPU to the second CPU upon the thermal sensor within the first CPU

measuring the predetermined power threshold [CPU #0 is selected to take over the process

performed by CPU #3, column 7, lines 13-41 and column 8, lines 12-27].

Regarding claims 10 and 11, Matoba further discloses determining which CPU has least

recently taken over the process [column 8, lines 12-17]..

Claims 8, 9 and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Matoba, US Patent no. 5,913,068 and Bealkowski et al., US Patent no. 6,378,027 [Bealkowski],

in view of Applicant's Admitted Prior Art [AAPA].

Matoba and Bealkowski, as described above, disclose a method and system for managing

power in computer system. Matoba and Bealkowski do not explicitly disclose a cooling system

comprising a heat pipe, heat exchanger and a cooling fan. However, the AAPA states that a

microprocessor cooling system comprising a heat pipe, heat exchanger and a cooling fan is well

known in the art [page 2, lines 13-20]. Therefore the advantages of using the cooling system are

well known in the art and it would have been obvious to one of ordinary skill in the art to

incorporate the well known cooling system disclosed by the AAPA in the system taught by

Matoba and Bealkowski.

Response to Arguments

Applicant's arguments with respect to claims 1-16 have been considered but are moot in

view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Orenstien et al., US Patent no. 6,804,632, discloses a method and system for selecting a

second CPU to operate a computer system when a first CPU is operating at too high of a

temperature.

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Paul B. Yanchus whose telephone number is (571) 272-3678.

The examiner can normally be reached on Mon-Thurs 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lynne H. Browne can be reached on (571) 272-3670. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul Yanchus
August 1, 2005

LYNNE H. BROWNE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100